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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,001	10/24/2003	William C. Phillips	1023-291US01	9336
28863 7590 06/13/2008 SHUMAKER & SIEFFERT, P. A. 1625 RADIO DRIVE SUITE 300 WOODBURY, MN 55125				
EXAMINER FLORY, CHRISTOPHER A				
ART UNIT 3762		PAPER NUMBER		
NOTIFICATION DATE 06/13/2008		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pairedocketing@ssiplay.com

### Office Action Summary

**Application No.**

10/693,001

**Applicant(s)**

PHILLIPS ET AL.

**Examiner**

CHRISTOPHER A. FLORY

**Art Unit**

3762

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 and 11-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see pages 23-24, filed 28 December 2007, with respect to the rejection of claims 1-9 and 11-35 under 35 U.S.C. §103(a) as obvious over Miesel'180 in view of Lippert'563, Wallerstorfer'995 or McEowen'237 have been fully considered and are persuasive. The §103(a) rejection of claims 1-9 and 11-35 based on Miesel'180 has been withdrawn.
2. Applicant's remaining arguments filed 28 December 2007 have been fully considered but they are not persuasive. Claims 1-8, 16, 18-27 and 29-35 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Cimochoowski'986 in view of Wallerstorfer'995 or in view of Lippert'563 or in view of McEowen'237. Claims 9, 11-23, 25, 26, 28, 29 and 33-35 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Pool Pool'975 in view of Lippert'563 or in view of Wallerstorfer'995 or in view of McEowen'237. Claims 1-9 and 11-35 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Taepke'939 in view of Lippert'563 or in view of Wallerstorfer'995 or in view of McEowen'237.
3. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Regarding Applicant's argument that Cimochoowski'986 and Pool'975 fail to teach an antenna defining an aperture comprising a wide end and a narrower channel adjacent the wide end, it is noted that this lacking is specifically the feature used to combine the secondary references with the Cimochoowski'986 and Pool'975 references. It is not set forth in the rejection that the opening defined by the Cimochoowski'986 or Pool'975 aperture comprises a wide end and narrower channel adjacent. In a §103 rejection, each reference does not have to disclose every limitation of the claims, but rather a reasonable combination of the prior art references must teach the limitations of the claims. The proposed combinations teach exactly that, wherein Cimochoowski'986 describes an antenna with an aperture opening, and the secondary references provide the claimed shape to hold the antenna on an article of clothing frictionally. Similar reasoning can be applied to the comments directed to Taepke'939.

Regarding Applicant's comments about the Wallerstorfer'995 reference, it is noted that fastening element 30 can clearly be seen as having a wide end towards the tag device, and a narrow end towards the top, wherein the narrower end can be considered a channel.

Regarding Applicant's comments directed to the Lippert'563 reference, it is noted that a triangle by definition has a wide end (the base) and a narrow end or channel (the vertex) opposite the base. Further, it is noted that drawing clothing through the opening would inherently create friction, And placement through an eye could reasonably qualify as an interference fit.

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Regarding the comments directed to the McEowen'237 reference, it is noted that the lanyard comprises a wide end at the end of the loop to be placed around the neck, hand, etc. and a narrow channel end where the two segments of the loop are closed together by a not or clasp. The loop would also inherently create friction against an article of clothing.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-8, 16, 18-27 and 29-35 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Cimochowski et al. (US Patent 5,967,986, hereinafter Cimochowski'986) in view of Wallerstorfer et al. (US 5,478,995, hereinafter Wallerstorfer'995) or in view of Lippert (US 6,634,563, hereinafter Lippert'563) or in view of McEowen (US 6,810,237, hereinafter McEowen'237).

In reference to claims 1, 4, 18, 25, 27, 29, 30, 31, 33 and 34, the Cimochowski'986 patent teaches a signal transfer unit (see abstract) enabling transfer of physiological data from a physiological sensor attached to a mammalian subject in use (which includes both internal and external devices), to a remote base station (see abstract and fig. 12). According to the Webster's II New Riverside University dictionary the ring like structure of figures 12 within the Cimochowski'986 patent fit the definition of

both a channel and an aperture because an aperture is defined as *an opening as a hole gap or slit*, and a channel is defined as *a course through which something can be directed or moved*, and though such a ring was not constructed to, it is still capable of holding a portion of clothing associated with a patient due to the fact that the clothing can be placed within the opening, and in turn hold the ring shaped antennae in a relatively fixed position relative to an implanted medical device. The Cimochoowski'986 patent teaches the use of a cable or cord of some sort to connect the coil with the power supply and monitoring cable (see fig. 12), and further the antenna of Cimochoowski'986 clearly defines the aperture therein.

Further regarding claims 1, 9, 18, 25 and 27-29, Cimochoowski'986 discloses the invention substantially as claimed including that the antenna define the aperture and that the aperture be formed to hold a portion of an item of clothing by an interference or friction fit since there is inherently friction between two materials being held together, but does not expressly disclose that the aperture have a wide end and a narrow channel adjacent the wide end. In the same problem solving area (the area of attaching items comprising antennas securely to clothing), both Lippert'563 and Wallerstorfer'995 teach antenna tags wherein an aperture comprises a wide end and a channel adjacent to the wide end formed to hold a portion of an item of clothing and hold the antenna in a substantially fixed position (Lippert'563 abstract; Wallerstorfer'995: Fig. 10, aperture 47; column 6, lines 44-66). In the same field of endeavor, McEowen'237 teaches an antenna defining an aperture with a wide end and a narrower channel (Fig. 1, loop 9) in order to attach a communications device to the clothing of a user with additional security

against dropping of the device and to provide an improved antenna (column 2, lines 19-24). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Cimochoowski'986 with the antenna aperture capable of holding an article of clothing as taught by any of Lippert'563, Wallerstorfer'995, and McEowen'237 in order to provide the Cimochoowski'986 system with the same advantages of holding an antenna in a substantially fixed position.

In reference to claims 2 and 19, the ring shaped antenna of figure 12 inherently possesses a wide end that can be used for the insertion of clothing.

In reference to claims 3 and 20, because the opening of the coil can be defined as both a channel and an aperture, if the coil of the device were held vertically then rotated about its vertical axis, the channel/aperture of the device would appear to be much thinner than the channel/aperture of the coil that is not rotated. The examiner suggests that the applicant alters the phraseology of the claim to state that the thinner channel is disposed next to, above, or beneath the wider aperture, or something of the like.

In reference to claims 5, 6, 21 and 22, the Cimochoowski'986 patent discloses the claimed invention except for rubberized grips. It would have been obvious to one of ordinary skill in the art at the time of the invention's conception to modify the antenna of the claimed device with rubberized grips since it is known in the art that rubberized grips can be used to improve the device's portability.

In reference to claims 7 and 23, referring to an object or orifice, as being teardrop shaped is quite broad considering the fact that a teardrop can be a multitude of shapes

considering its environment. Teardrops can appear to be circular, similar to the coil of the Cimochoowski'986 patent, in many environments.

In reference to claims 8 and 24, and further regarding claims 30 and 33, though the Cimochoowski'986 patent does not teach the use of an insulative telemetry head housing that encases the antenna, the Cimochoowski'986 patent does teach the use of telemetry coil that acts as antennae (see fig. 12) and such housing is common in the art. Thus it would have been obvious to one of ordinary skill in the art to incorporate such housing into the Cimochoowski'986 invention to protect the coils from damage and as a result of the commonality of said housing in the art.

In reference to claims 16 and 26, the Cimochoowski'986 patent discloses the claimed invention except for a neurostimulator, however the Cimochoowski'986 patent does teach the use of an implanted device in conjunction with an external programming device, and the use of an external programmer in conjunction with an internal device is quite common. Thus it would have been obvious to one of ordinary skill in the art at the time of the claimed invention's conception to modify the implanted neuralstimulator with an external programmer due to the commonality of such a combination and to provide the user with a convenient means for adjusting the stimulation parameters of the implanted device.

Regarding claims 32 and 35, Cimochoowski'986 discloses plastic materials. Furthermore, molded plastic housings are well known in the biomedical art.



6. Claims 9, 11-23, 25, 26, 28, 29 and 33-35 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Pool et al. (US Patent 6,561,975, hereinafter Pool'975) in view of Lippert'563 or in view of Wallerstorfer'995 or in view of McEowen'237.

In reference to claim 9, 11, 20, 33 and 34, the Pool'975 patent teaches a device that is capable of communicating with an implanted device, as well as teaching that the antenna can be housed within a belt (see column 8, lead lines 34-38). Such a housing inherently possesses the ability to have clothing pulled through the channel created by buckling the belt, there by holding the antenna in a substantially fixed position relative to the implanted device, and wherein the antenna clearly defines the aperture within the belt. It is also inherent that the junction of such an opening and a piece of clothing would create friction and therefore constitute a friction fit.

Further regarding claim 9, Pool'975 is considered to disclose the invention substantially as claimed, including an antenna defining the aperture and the aperture being capable of holding a portion of an item of clothing, but does not expressly disclose that the aperture comprise a wide end and a narrow channel adjacent the wide end. In the same problem solving area (the area of attaching items comprising antennas securely to clothing), both Lippert'563 and Wallerstorfer'995 teach antenna tags wherein an aperture comprises a wide end and a channel adjacent to the wide end formed to hold a portion of an item of clothing and hold the antenna in a substantially fixed position (Lippert'563 abstract; Wallerstorfer'995: Fig. 10, aperture 47; column 6, lines 44-66). In the same field of endeavor, McEowen'237 teaches an antenna defining an aperture with a wide end and a narrower channel (Fig. 1, loop 9) in order to attach a

communications device to the clothing of a user with additional security against dropping of the device and to provide an improved antenna (column 2, lines 19-24). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Cimochoowski'986 with the antenna aperture capable of holding an article of clothing as taught by any of Lippert'563, Wallerstorfer'995, and McEowen'237 in order to provide the Cimochoowski'986 system with the same advantages of holding an antenna in a substantially fixed position.

In reference to claims 13, 14, 21 and 22, the Pool'975 patent discloses the claimed invention except for rubberized grips. It would have been obvious to one of ordinary skill in the art at the time of the invention's conception to modify the antenna of the claimed device with rubberized grips since it is known in the art that rubberized grips can be used to improve the device's portability.

In reference to claims 16, 17 and 26, the Pool'975 patent discloses the claimed invention except for a neurostimulator, however the Pool'975 patent does teach the use of an implanted device in conjunction with an external programming device, and the use of an external programmer in conjunction with an internal device is quite common. Thus it would have been obvious to one of ordinary skill in the art at the time of the claimed invention's conception to modify the implanted neurostimulator with an external programmer due to the commonality of such a combination and to provide the user with a convenient means for adjusting the stimulation parameters of the implanted device.

In reference to claims 19, 25, 28 and 29, the Pool'975 patent teaches a device that is capable of communicating with an implanted device, as well as teaching that the

antenna can be housed within a belt (see column 8, lead lines 34-38). Such a housing inherently possesses the ability to have clothing pulled through the channel created by buckling the belt, thereby holding the antenna in a substantially fixed position relative to the implanted device. The Pool'975 patent teaches a signal transfer unit (see abstract) enabling transfer of physiological data from a physiological sensor attached to a mammalian subject in to a remote device (see abstract). According to the Webster's II New Riverside University dictionary the ring like structure of the belt described within the Pool'975 patent (see column 8, lead lines 34-38) fits the definition of both a channel and an aperture because an aperture is defined as *an opening as a hole gap or slit*, and a channel is defined as *a course through which something can be directed or moved*, and though such a ring was not constructed to, it is still capable of holding a portion of clothing associated with a patient due to the fact that the clothing can be placed within the opening, and in turn hold the ring shaped antennae in a relatively fixed position relative to an implanted medical device. The Pool'975 patent teaches the use of a "wand or some other extendible head, containing at least an antenna, is connected to the remainder of the programmer unit via a stretchable coil cable..." (See column 3, lines 6-11).

In reference to claim 15, referring to an object or orifice as being teardrop shaped is quite broad, considering the fact that a teardrop can be a multitude of shapes considering the environment. Teardrops can appear to be circular, similar to the belt like housing of the Pool'975 patent, in many environments.

In reference to claims 12 and 18, the Pool'975 patent teaches a signal transfer unit (see abstract) enabling transfer of physiological data from a physiological sensor attached to a mammalian subject in to a remote device (see abstract). According to the Webster's II New Riverside University dictionary the ring like structure of the belt described within the Pool'975 patent (see column 8, lead lines 34-38) fits the definition of both a channel and an aperture because an aperture is defined as *an opening as a hole gap or slit*, and a channel is defined as *a course through which something can be directed or moved*, and though such a ring was not constructed to, it is still capable of holding a portion of clothing associated with a patient due to the fact that the clothing can be placed within the opening, and in turn hold the ring shaped antennae in a relatively fixed position relative to an implanted medical device. The Pool'975 patent teaches the use of a "wand or some other extendible head, containing at least an antenna, is connected to the remainder of the programmer unit via a stretchable coil cable..." (See column 3, lines 6-11).

In reference to claim 23, referring to an object or orifice, as being teardrop shaped is quite broad considering the fact that a teardrop can be a multitude of shapes considering the environment. Teardrops can appear to be circular, similar to the aforementioned belt like housing of the Pool'975 patent, in many environments.

Regarding claim 35, molded plastic housings are well known in the art.

7. Claims 1-9 and 11-35 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Taepke, II et al. (US 6,650,939, hereinafter Taepke'939) in view of Lippert'563 or in view of Wallerstorfer'995 or in view of McEowen'237.

Regarding claims 1, 2, 4, 5, 8, 9, 12, 13, 18, 19, 21, 24, 25, 27-31, 33 and 34, Taepke'93 clearly discloses an antenna for medical devices and method therefor (title; abstract; Figure 2) comprising a device housing (Fig. 2, antenna head 22 or Fig. 1, device 100); telemetry circuitry (Fig. 3, telemetry 32); a cable coupling the antenna to telemetry circuitry (Fig. 2, cable between antenna 22 and DUI 24; wherein the edges of the antenna head can inherently be considered grip surfaces, since they must necessarily be handled in order to place the antenna head; and wherein the antenna defines an aperture and is formed to hold a portion of an item of clothing associated with the patient (column 5, line 7), wherein there is inherently friction in the connection.

Further regarding claims 1, 9, 18, 25 and 30, and regarding claims 3, 7, 11, 15, 20 and 23; Taepke'939 is considered to disclose the invention substantially as claimed, including an antenna that defines an aperture intended to hold the antenna on an item of clothing related to the patient, but does not expressly disclose that the aperture have a wide end and a narrow channel adjacent the wide end. In the same problem solving area (the area of attaching items comprising antennas securely to clothing), both Lippert'563 and Wallerstorfer'995 teach antenna tags wherein an aperture comprises a wide end and a channel adjacent to the wide end formed to hold a portion of an item of clothing and hold the antenna in a substantially fixed position (Lippert'563 abstract; Wallerstorfer'995: Fig. 10, aperture 47; column 6, lines 44-66). In the same field of endeavor, McEowen'237 teaches an antenna defining an aperture with a wide end and a narrower channel (Fig. 1, loop 9) in order to attach a communications device to the clothing of a user with additional security against dropping of the device and to provide

an improved antenna (column 2, lines 19-24). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Taepke'939 with the antenna aperture capable of holding an article of clothing as taught by any of Lippert'563, Wallerstorfer'995, and McEowen'237 in order to provide the Taepke'939 system with the same advantages of holding an antenna in a substantially fixed position.

In reference to claims 6, 14 and 22, the Taepke'939 patent discloses the claimed invention except for rubberized grips. It would have been obvious to one of ordinary skill in the art at the time of the invention's conception to modify the antenna of the claimed device with rubberized grips since it is known in the art that rubberized grips can be used to improve the device's portability.

In reference to claims 16, 17 and 26, the Taepke'939 patent discloses the claimed invention except for a neurostimulator. However the Taepke'939 patent does teach the use of an implanted device in conjunction with an external programming device, and the use of an external programmer in conjunction with an internal device is quite common. Thus it would have been obvious to one of ordinary skill in the art at the time of the claimed invention's conception to modify the implanted neurostimulator with an external programmer due to the commonality of such a combination and to provide the user with a convenient means for adjusting the stimulation parameters of the implanted device.

Regarding claims 32 and 35, molded plastic is a well known means of manufacturing device housings, specifically antenna heads.

### **Conclusion**

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Flory whose telephone number is (571) 272-6820. The examiner can normally be reached on M - F 8:30 a.m. to 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (571) 272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher A. Flory  
11 June 2008

**/George Manuel/**  
Primary Examiner